MACHAKOS UNIVERSITY

University Examinations for 2020/20201Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

FIRST YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (ACTUARIAL SCIENCE)

BACHELOR OF ECONOMICS & STATISTICS

BACHELOR OF ECONOMICS & FINANCE

BACHELOR OF EDUCATION (ARTS)

BACHELOR OF ECONOMICS

BACHELOR OF COMMERCE

BACHELOR OF ARTS

EET 100: MICROECONOMIC THEORY I

DATE: 23/2/2021 **TIME:2.00-4.00 PM**

INSTRUCTIONS:

Answer Question **ONE** and any other **TWO** questions

QUESTION ONE (30 MARKS)

a) Explain the conditions under which a perfect competitive firm operates (5 marks)

b) Explain why indifference curves cannot intersect (3 marks)

c) With the aid of indifference curve differentiate between perfect substitutes and perfect complements. (4 marks)

d) With aid of a diagram, explain the following concepts as used in economics (6 marks)

i. Opportunity cost

ii. Isoquant

e) Demand and supply functions of commodity X are as shown below,

Qd =100 – 2P

Qs = -40 + 4P

Required:

compute the equilibrium price and quantity (round to 2 decimal place) (6 marks)

f) The total cost equation in the production of beef in Machakos is given as follows

$TC= 1000+100Q -15Q^2+Q^3$

Where TC is total cost, Q is quantity measured in kilogrammes

Compute the following;

i. average fixed costs (2 marks)

ii. average variable cost functions (2 marks)

iii. Marginal cost function (2 marks)

QUESTION TWO (20 MARKS)

a) Differentiate between normal and inferior goods (2 marks)

b) Briefly discuss the internal economies of scale (8 marks)

c) With aid of diagram, briefly discuss three properties of an isoquant (6 marks)

d) A good's price is related to its marginal utility, not its total utility. Thus a good like water or air may be cheap, even though its total utility is high. Evaluate this statement (4 marks)

QUESTION THREE (20 MARKS)

a) State the main sources of monopoly power (8 marks)

b) Using diagrams, illustrate output levels for both profit maximising and the loss making monopolist firm in the short run (8 marks)

c) Differentiate between laws of diminishing marginal utility and diminishing marginal returns (4 marks)

QUESTION FOUR (20 MARKS)

a) Discuss the main types of economic systems. Which one(s) are relevant in our Kenyan situation? (10 marks)

b) Discuss any three determinants of price elasticity of demand (6 marks)

c) If the quantity demanded of product B has decreased from 1000 to 900 units as price increased from \$ 2 to \$ 4 per unit, calculate the price elasticity of demand and interpret your answer. (4 marks)

QUESTION FIVE (20 MARKS)

a) Define the term cross elasticity of demand and explain its value for substitutes and complementary goods (4 marks)

b) Use the data in the table below to compute income elasticity through the arc elasticity method. (4 marks)

Quantity	Income(Kshs.)	Price(Kshs.)
100	5000	16
120	6000	16

c) Discuss any three exceptions of the law of demand (6 marks)

d) Write short notes on the following concepts;

i. Consumer surplus (3 marks)

ii. Short run and long run period of production (3 marks)